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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/790,241	03/02/2004	Satoshi Mackawa	1640.1022	9883
21171	7590	06/06/2005	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			ROBBINS, JANET L	
			ART UNIT	PAPER NUMBER
			2857	

DATE MAILED: 06/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/790,241	MAEKAWA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Janet Robbins	2857	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 July 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 4, 7/4 and 8/4 is/are rejected.
- 7) ☒ Claim(s) 2, 3, 5, 7/5, 7/6, 8/5, and 8/6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities:

In Paragraph 00011, line 5 reads "The reason of this". The "of" should be replaced with "for".

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 4, 7/4, and 8/4 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee et al. (US Patent 6,424,960).

With respect to claims 1 and 2, Lee et al. teaches a signal separation system for separating plural source signals before mixture (col1, ln 8-12) from mixture signals having said source signals mixed temporally and spatially (col 2, ln 11-12, 24-28; col 4, ln 65 – col 5, ln 17), comprising:

signal input means for inputting said mixture signals (col 5, ln 19; col 13, ln 44-48; col 14, ln 13-16, 27-37);

signal storing means for storing said input mixture signals (col 5, ln 24-26, 32);  
and

signal separation means for extracting the mixture signals stored in said signal storing means (col 5, ln 24-26, 32) and separating said source signals from said extracted mixture signals (Fig. 2, 280; col 1, ln 12; col 5, ln 34-38; col 8, ln 40-42);

wherein said signal separation means transforms said extracted mixture signals into a linear sum of bases (col 6, ln 26-31; 49-58), and separates said source signals using a learning algorithm (Fig. 11; col 2, ln 49-52; col 5, ln 65 – col 6, ln 4) based on overcomplete representations (col 4, ln 48-51, 57-58).

With respect to claim 7/4, Lee et al. teaches a blind signal separation program for enabling a computer (col 1, ln 8-12; Fig. 10; col 13, ln 30-39) to perform the blind signal separation method according to claim 4.

With respect to claim 8/4, Lee et al. teaches a recording medium that records the blind signal separation program (col 13, ln 37-39) for enabling a computer to perform the blind signal separation method according to claim 4.

3. Claims 1, 4, 7/4 and 8/4 are rejected under 35 U.S.C. 102(e) as being anticipated by Kadambe (US PG Pub 2003/0061035 A1).

With respect to claims 1 and 2, Kadambe teaches a signal separation system for separating plural source signals before mixture (Fig. 1, 102) from mixture signals having

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said source signals mixed temporally and spatially (Pg 5, paragraph 0077, ln 10-13), comprising:

signal input means for inputting said mixture signals (Fig. 1, 100, Fig. 3, 302);

signal storing means for storing said input mixture signals (Fig. 2, 200; Fig 3, 308); and

signal separation means for extracting the mixture signals stored in said signal storing means (Fig. 3, 306) and separating said source signals from said extracted mixture signals (pg 2, paragraph 0020, ln 1-5);

wherein said signal separation means transforms said extracted mixture signals into a linear sum of bases (pg 13, paragraph 0175), and separates said source signals using a learning algorithm (pg 3, paragraph 0028, 0029, 0030, 0031) based on overcomplete representations (pg 2, paragraph 0020, ln 5).

With respect to claim 7/4, Kadambe teaches a blind signal separation program for enabling a computer (Fig. 3, 306; pg 6, paragraph 0087, ln 10-14) to perform the blind signal separation method according to claim 4.

With respect to claim 8/4, Kadambe teaches a recording medium that records the blind signal separation program (pg 6, paragraph 0087, ln 14-16) for enabling a computer to perform the blind signal separation method according to claim 4.

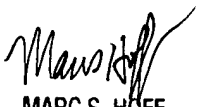
***Allowable Subject Matter***

4. Claims 2, 3, 5, 6, 7/5, 7/6, 8/5 and 8/6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janet Robbins whose telephone number is 571-272-8584. The examiner can normally be reached on weekdays from 7:30am - 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on 571-272-2216. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

JLR  
May 26, 2005

  
MARC S. HOFF  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800